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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,932	08/28/2003	Lawson A. Wood	AW-20	6102

7590  
L. Allen Wood  
873 N. Frederick St.  
Arlington, VA 22205

11/22/2005

EXAMINER

LIN, WEN TAI

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/649,932	<b>Applicant(s)</b> WOOD, LAWSON A.	
	<b>Examiner</b> Wen-Tai Lin	<b>Art Unit</b> 2154	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,5-7,13,14,17,21-24 and 27-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 5-7, 13-14, 17, 21-24 and 27-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

1. Claims 1, 5-7, 13-14, 17, 21-24 and 27-37 are presented for examination.

Claims 27-37 are newly added.

2. Claim is objected to because the term "the communication system" appears to lack antecedent basis. Further, the phrase "the at least" in claim 14 appears to be a typo of "the at least one".

### ***Claim Rejections - 35 USC § 103***

3. Claims 1, 5-7, 13-14, 17, 21-24, 27-28, 33-35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiser et al.(hereafter "Wiser") [U.S. Pat. No. 6385596] in view of McNab et al.(hereafter "McNab") ["The New Zealand Digital Library MELody inDEX", May 1997].

4. As to claims 1 and 6-7, Wiser teaches the invention substantially as claimed including: a method for distributing music over the internet [col.3, lines 5-10], comprising the steps of:

(b) sending information to identify the musical compositions in writing to the person over the internet [Fig.8; col.14, lines 40-47];

(c) receiving a request from the person over the communication system for an audio preview of one of the musical compositions, which has been selected by the person [col.14, lines 48-51];

(d) sending a corrupted version of some or all of the selected musical composition to the person over the internet [col.3, lines 50-63; that is, the low quality audio data for preview is a corrupted version of some or all of the musical composition];

(e) receiving a request from the person over the internet for the selected musical composition without corruption [col.29, lines 65-67]; and

(f) sending the selected musical composition without the corruption to the person [col.30, lines 20-22; col.3, lines 54-55].

Wiser does not specifically teach the step of :

(a) recognizing a plurality of musical compositions from a specimen vocalized by a person, by comparing a pattern derived from the specimen with patterns from a pattern library, wherein the pattern derived from the specimen comprises pitch and duration information.

However, McNab teaches a method for identifying and retrieving melodies from a database on the basis of a few notes [i.e., a specimen] sung into a microphone, or entered (by playing a provided instrument) [Abstract and page 2, the 3rd paragraph] wherein the specimen comprises pitch and duration information [see, e.g., paragraphs #2-3 on page 3 and paragraph #1 on page 4].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combine the teachings of Wiser and McNab by applying McNab's specimen query technique in Wiser's online music distribution system, because McNab's method provides a natural and convenient way of specifying a music or song for purchase.

Further, Wiser and McNab do not specifically teach providing with a set of keys for the person to hear and choose from before vocalizing the specimen. However McNab teaches that the specimen can be extracted from singing (e.g. humming into a microphone) or playing (e.g., entering via a musical instrument) a few notes. To accommodate such options, McNab's system must have provided both means for the person to choose, e.g., both a microphone and a musical instrument are in place. As such, it would have been obvious to one of ordinary skill in the art that a person who choose to vocalize a few notes could have initiated a tuning process by playing a few keys on the available musical instrument before vocalizing because tuning tends to better position one's tone on a musical scale.

5. As to claim 5, McNab further teaches receiving the specimen over the internet and then deriving the pattern from the specimen [paragraphs 3 and 5 on page 2].

6. As to claim 13, Wiser further teaches securing payment for the musical composition without corruption before conducting step (f) [Abstract; i.e., the music is decrypted only after payment is done].

7. As to claim 27, McNab further teaches that the specimen further comprises duration information [paragraph #2-3 on page 3].

8. As to claims 14, 17, 21-24, 34 and 36 since the features of these claims can also be found in claims 1, 5 and 13 they are rejected for the same reasons set forth in the rejection of claims 1, 5 and 13 above.

As for additional feature in claims 14, 21, 34 and 36 requiring that the system be provided with a simulated musical instrument (or keyboard) for sending out codes identifying the notes picked out rather than sounds detected by a microphone: it is noted that McNab's system is provided with an instrument for entering the notes into the system as an alternative to the vocalizing approach, wherein simulated musical instrument is an obvious variation among all the popular and affordable choices of musical instruments because it is easier, among other virtues, to operate a simulated musical instrument than a real one. Further, it is obvious that, by operating a simulated musical instrument, codes in electronic form are ready to be picked up by the network interface device. Thus, it would have been obvious to one of ordinary skill in the art to use a simulated musical instrument for entering sampled notes into Wiser and McNab's system.

9. As to claims 28, 33 and 35, Wiser and McNab do not specifically teach how to operate a simulated musical instrument, e.g., adjusting tempo (claim 28), displaying on

a monitor for mapping notes to keys of a keyboard (claim 35), and showing operation buttons such as record, play, rewind (backup) and send, etc, (claim 33).

However, providing manual control for adjusting tempo is well known in the art of electronic keyboard. It is also well known in the art of computer-implemented musical player such as simulated piano wherein symbols of a set of keys with their associated notes are displayed on a monitor for user's interactive actuation of the player.

Since Wiser and McNab's system has an option of providing direct keying musical notes rather than vocalizing the notes, it would have been obvious to one of ordinary skill in the art to use computer simulated or computer controlled musical instrument for providing the user's key-in interface because the above interfaces/control enables a novice player to quickly learn, with trials and errors using record-play-rewind buttons, how to operate the simulated instrument.

10. Claims 29-32 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiser et al. [U.S. Pat. No. 6385596] and McNab ["The New Zealand Digital Library MELody inDEX", May 1997], as applied to claims 1, 5-7, 13-14, 17, 21-24, 34 and 36 above, further in view of Ghias et al.(hereafter "Ghias") [U.S. Pat. No. 5874686].

11. As to claims 29-32 and 37, Wiser and McNab do not specifically teach that the specimen further comprises: identifying a sequence of notes in the specimen without rests between the notes (e.g., a pitch sequence); information about time the interval between the beginning of one note in the sequence and the beginning of the next note

(i.e., a duration sequence); and technique of pitch tracking by observing signal strength among a plurality of frequency banks and determining half-tone changes between the frequency bands.

However, Ghias teaches a technique of pitch tracking which includes detecting relative pitch transitions, wherein a filter bank is used for tracing the changes in signal strength among different frequencies [e.g., Figs. 4-5; col.3, line 8 – col.4, line 26; col.8, lines 10-23]. Further, it is obvious that a pitch sequence could be converted into a duration sequence because the duration of a same pitch is observable from the pitch sequence (e.g., by accumulating the span of time for before a pitch has been transitioned to another).

Thus, it would have been obvious to one of ordinary skill in the art to have used use pitches and the duration of each recorded note as representation of a music because such technique has been proven to be effective for storage, providing improved performance for searching through the database [McNab: Abstract; page 2, paragraph #6 – page 5, paragraph #2].

12. Applicant's arguments filed on 9/9/2005 for claims 1, 5-7, 13-14, 17 and 21-24 have been fully considered but they are not deemed to be persuasive.

13. Applicant argues in the remarks that although tuning with selected tempos and keys before vocalizing might be well known in occasions such as choir or musical performance, but not in the environment as claimed.



14. The examiner respectfully disagrees with applicant's remarks because McNab teaches that the selected notes can be extracted either via vocalizing or playing (an instrument). To accommodate such options, McNab's system must have provided both means for a person to choose, e.g., both a microphone and a musical instrument must be in place. As such, it would have been obvious to one of ordinary skill in the art that a person who choose to vocalize a few notes could have initiated a tuning process by playing a few keys on the available musical instrument before vocalizing because tuning tends to better position one's tone on a musical scale.

For at least the above reasons, it is submitted that the prior art of record reads on all the claims.

15. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

16. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Conclusion***

**Examiner note:** Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant.

Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the contest of the passage as taught by the prior art or disclosed by the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (571)272-3969. The examiner can normally be reached on Monday-Friday(8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(703)872-9306 for official communications; and


(571)273-3969 for status inquiries draft communication.

Art Unit: 2154

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wen-Tai Lin

November 14, 2005

  
11/14/05